

Customer No.: 31561
Application No.: 10/710,422
Docket No.: 11572-US-PA

REMARKS

Present Status of the Application

This is a full and timely response to the outstanding final Office Action mailed on June 21, 2005. The Office Action has rejected claims 6-11 under 35 U.S.C. 112, 2nd paragraph, as being indefinite. The Office Action has also rejected claims 1, 4-6, 9-11 under 35 U.S.C. 102(b) as being anticipated by Kao et al. (USP 6,249,044) and claims 2-3, 7-8 under 35 U.S.C. 103(a) as being unpatentable over Kao in view of Huang (6,452,270).

Upon entry of this amendment of the claims, claims 1-11 remain pending of which claims 1, 3, 6 have been amended and claims 2, 5, 7-8 and 10 have been cancelled to more accurately describe the present invention. New claims 12-13 have been added. It is believed that no new matter is added by way of these amendments made to the claims or otherwise to the application.

After carefully considering the remarks set forth in this Office Action and the cited references, Applicants respectfully submitted that the now pending claims are in condition for allowance. Reconsideration and withdrawal of the Examiner's rejection are requested.

Customer No.: 31561
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Response to Rejections under 35 U.S.C §112

Claims 6-11 are rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In response thereto, claim 6 has been amended to recite "the chip comprising the bonding pad" to specify it is the same bonding pad. Withdrawal of the rejections is courteously requested.

Response to Rejections under 35 U.S.C. §102

Claims 1, 4-6 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kao et al. (USP 6,249,044).

Applicants respectfully submit that independent claims 1 and 6 patently define over Kao for at least the reason that the cited art fails to disclose each and every feature as claimed in the present invention. More particularly, claim 1 of the present invention teaches, among other things, "...the UBM layer comprises a plurality of metal layers and at least one liner layer, and the liner layer is formed among the metal layers, wherein the liner layer is formed only close to an end of the transmission line which is connected to the bonding pad...", while claim 6 of the present invention teaches "...the UBM layer comprises a plurality of metal layers, and only a portion of one of the metal layers at a region which is close to the transmission line is thicker than a remaining portion of the one of the metal layers which is away from the transmission line...".

Customer No.: 31561
Application No.: 10/710,422
Docket No.: 11572-US-PA

On the other hand, Kuo simply teaches that the metal layer 37A of the UBM layer is 1.0 micron thick (col. 4, ln 30). In other words, the metal layer 37A is uniformly thick in the UBM layer. While in the present invention, only a portion of one of the metal layers at a region which is close to the transmission line is thicker as taught in claim 6. As for claim 1, Kuo is completely silent about forming a liner layer among the metal layers, let alone the fact that the liner layer is formed only close to an end of the transmission line which is connected to the bonding pad.

For at least these reasons, Applicant respectfully asserts that Worley fails to teach or suggest the present invention or to render claims 1 and 6 anticipated. Since claims 1, 3-4 and claims 9 and 11 are dependent claims, which further define the invention recited in claims 1 and 6, respectively, Applicants respectfully assert that these claims also are in condition for allowance. Thus, reconsideration and withdrawal of this rejection are respectfully requested.

Response to Rejections under 35 U.S.C. §103

Claims 2-3 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuo in view of Huang (USP 6,452,270).

With regard to the 103 rejections of claims by Kuo in view of Huang, Applicants respectfully submit that these claims defined over the prior art references for at least the reasons discussed above.

The Office further relies on the Huang patent to teach a liner layer. Even if the copper layer 340a of Huang can be construed as compatible to a liner layer, the copper layer 340a

Customer No.: 31561
Application No.: 10/710,422
Docket No.: 11572-US-PA

does not formed only close to an end of the transmission line which is connected to the bonding pad. Instead, the copper layer 340a is formed extending along the entire UBM layer.

Accordingly, Applicants respectfully submit that even Kuo is combined with Huang, the combination still fails to teach or suggest the claimed invention. Reconsideration and withdrawal of the rejection are respectfully requested.

Newly Added Claims

Applicants have added claims 12-13 of which claim 12 is written in independent form, including the features of the UBM layers comprising a plurality of metal layers and only a portion of one of the metal layers at a region which is close to the transmission line being thicker than a remaining portion of the one of the metal layers which is away from the transmission line, so as to further limit the claimed subject matter of the present invention. Therefore, it is submitted that claims 12-13 are in condition for allowance for the above reasons.

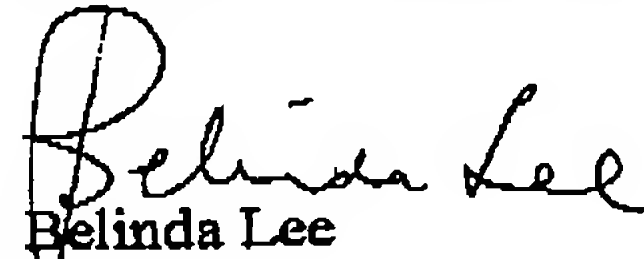
Customer No.: 31561
Application No.: 10/710,422
Docket No.: 11572-US-PA

CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1, 4, 6, 9, 11-13 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,


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